

L 32905-65

ACCESSION NR: AT5004145

recorded informations, the authors focused their attention in particular on the study of the magnetic characteristics of Co-P alloys, since, according to the structural diagram, at specific compositions one can expect the electrodeposition of heterogeneous alloys possessing a high coercive force. The purpose of the present work was to investigate the effect of the conditions of the deposition and the composition of the electrolyte on the composition, quality, structure, magnetic properties and current efficiency of the Co-P alloy. The tests were conducted in glass electrolyzers of 0.5-1 liter capacity, with a thermostat used in high-temperature work. The pH of the electrolyte was checked by a glass electrode and an LP-58 potentiometer. The magnetic properties were determined through the use of a device not described in this article, while current efficiency values were verified by means of a copper coulomb-meter. Polarization measurements were made in a special thermostatically-controlled cell, and the electrodes were subjected to preliminary purification by activated carbon and low-density current. Other test procedures and a concise description of the methodology employed in the preliminary investigations are outlined in the article. The buffer properties of the electrolyte are discussed in a separate section. The results, presented primarily in graph form, indicate the following basic conclusions: 1. the coercive force of pure electrolytic cobalt increases somewhat as the cobalt concentration in the solution increases and then shows no further change; 2. the pH

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of the solution has the most marked effect on the magnetic properties of the depositions, with an increase in pH above 3.4 resulting in low precipitate quality; 3. the temperature of the solution also has a considerable influence on the magnetic properties of the depositions, with maximum coercive force achieved at temperatures of 25-40 C; 4. as the current density is increased, the coercive force passes through a maximum, shifting toward lower densities as the temperature is lowered; optimal current densities are: 2.5 amp/dm² for 20 C and 5-10 amp/dm² for 40 C; 5. for the electrodeposition of a Co-P alloy possessing a coercive force of 600-800 oersteds and an orthogonality factor of 0.55-0.6, an electrolyte of the following composition is recommended: CoCl₂·6H₂O 200-400 g/liter; NH₄H₂PO₂ 25-100 g/liter; Trilon B 10-15 g/liter, pH 1.8-2; temperature 20-40 C, current density 2.5-5 amp/dm². Orig. art. has: 7 figures.

ASSOCIATION: none

SUBMITTED: 08Oct64

ENCL: 00

SUB CODE: MM, DP

NO REF SOV: 007

OTHER: 004

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L 32904-65 EWT(m)/EPA(s)-2/EWP(t)/EPA(bb)-2/EWP(b) Pad/Pt-10 IJP(c)
JD/HW/GS

ACCESSION NR: AT5004146

S/0000/64/000/000/0124/0127

AUTHOR: Bondar', V.V.; Melnikova, M. M.; Polukarov, Yu. M.

TITLE: Electrodeposition of magnetically-hard alloys. Part II. Electrodeposition of cobalt-nickel-phosphorus and cobalt-manganese-phosphorus alloys

SOURCE: AN SSSR. Institut nauchnoy informatsii. Informatsionnyye sistemy (Information systems). Moscow, 1964, 124-127

TOPIC TAGS: magnetic memory, magnetically hard alloy, alloy electrodeposition, cobalt alloy, nickel alloy, phosphorus containing alloy, manganese alloy, alloy magnetic property

ABSTRACT: For the purpose of expanding the assortment of alloys which may be used in information recording (computer storage applications), and also of developing electrolytes to operate in a wider pH interval, the authors studied the effect of nickel and manganese ions on the electrodeposition of a Co - P alloy. A number of bibliographical references (most of them American) are cited in a discussion of the magnetic properties of Co - Ni alloys obtained by the electrodeposition method. The authors call attention to the fact that Co-Ni-P alloys, chemically obtained, possess a coercive force of 4-14 oersteds and contain about 5% P.

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and different quantities of nickel and cobalt (these alloys have been used in the manufacture of memory elements in high-speed computers). An investigation was made of the conditions for the electrodeposition of Co-Ni-P and Co-Mn-P alloys, and the effect of different factors on the magnetic properties and composition of the alloys was studied. For the electrodeposition of a Co-Ni-P alloy having a coercive force of 1000-1400 oersteds and a rectangularity factor of 0.7, an electrolyte of the following composition is recommended:

$\text{CoCl}_2 \cdot 6\text{H}_2\text{O}$ 100-200 g/l;

$\text{NiCl}_2 \cdot 6\text{H}_2\text{O}$ 140 g/l;

$\text{NH}_4\text{H}_2\text{PO}_2$ or NaH_2PO_2 25-100 g/l.

The pH of the electrolyte is 2.5-3, the temperature is 40C. For the electrodeposition of a Co-Mn-P alloy having a coercive force of 500-900 oersteds, residual inductance of 6000-9000 gauss and rectangularity factor of 0.65-0.85, the following electrolyte is recommended:

$\text{CoCl}_2 \cdot 6\text{H}_2\text{O}$ or $\text{CoSO}_4 \cdot 7\text{H}_2\text{O}$ 200-400 g/l;

$\text{MnCl}_2 \cdot 4\text{H}_2\text{O}$ or $\text{MnSO}_4 \cdot 4\text{H}_2\text{O}$ 20-30 g/l;

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$\text{NH}_4\text{H}_2\text{PO}_2$ or NaH_2PO_2 25-50 g/l.
As a buffer admixture 10 g/l Trilon B may be added to the electrolyte, the deposition of the alloy occurring at a temperature of 18-40 C, pH 1.8-5. The current efficiency of the alloy is about 100% (cobalt anodes). Orig. art. has: 3 figures.

ASSOCIATION: None

SUBMITTED: 08Oct64

NO REF SOV: 006

ENCL: 00

SUB CODE: MM, DP

OTHER: 008

Card 3/3

L 38298-65 EWT(m)/EMP(b)/T/EWA(d)/EMP(w)/EMP(t) Pad IJP(c) JD/HW

ACCESSION NR: AP5011516

UR/0286/64/000/023/0070/0070

AUTHOR: Polukarov, Yu. M.; Mel'nikova, M. M.; Bondar', V. V.; Botova, V. P. 25
B

TITLE: Electrodeposition of Ni-Co alloy. Class 48, No. 166870 ✓

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 23, 1964, 70

TOPIC TAGS: nickel alloy, cobalt alloy, electroplating, metal property ✓

Abstract: The electrodeposition of a Ni-Co alloy for the purpose of improving physical and mechanical properties is done in an electrolyte containing:

Ingredient	g/l
Nickel chloride	140
Cobalt chloride	140
Ammonium hypophosphate	100
Trilon B	10

at 40 C and $D_c = 10 \text{ a/dm}^2$.

Card 1/1

L 38967-65 EWT(m)/EWA(d)/EWP(t)/EWP(b) JD

ACCESSION NR: AP5008570

S/0286/65/000/006/0101/0101

AUTHORS: Bondar', V. V.; Polukarov, Yu. M.; Mel'nikova, M. M.

21
B

TITLE: A method for electrolytic deposition of a magnetic ternary alloy, Class 48, No. 169371

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 6, 1965, 101

TOPIC TAGS: electrolysis, magnetic alloy, cobalt, phosphorus, manganese, ammonium compound, sodium compound / Trilon B

ABSTRACT: This Author Certificate presents a method for electrolytic deposition of a magnetic ternary alloy containing cobalt and phosphorus. To obtain films of alloy cobalt-manganese-phosphorus, the process is conducted at a temperature of 18-40C, with current density of 1-10 amp/dm², and a pH of 1.8-5. The electrolyte contains sulfuric acid or chlorine salts of cobalt (200-300 g/liter), of manganese (20-40 g/liter), ammonium hypophosphate or sodium hypophosphate (35-50 g/liter), and Trilon B (10 g/liter).

ASSOCIATION: none

SUBMITTED: 17Jul63

NO REF SOV: 000

ENCL: 00

OTHER: 000

SUB CODE: GC

Card 1/1 *me*

L 09166-67 EWT(m)/EWP(t)/ETI IJP(c) JD
ACC NR: AP7002303 SOURCE CODE: UR/0364/66/002/004/0487/0491 38

AUTHOR: Polukarov, Yu. M.; Gamburg, Yu. S.

ORG: Institute of Physical Chemistry, AN SSSR (Institut fizicheskoy khimii AN SSSR);
Moscow Chemical Engineering Institute Im. D. I. Mendeleev, Moscow (Moskovskiy
khimiko-tekhnologicheskii institut)

TITLE: Radiographic investigation of crystal lattice defects in electrolytic copper
deposits

SOURCE: Elektrokhimiya, v. 2, no. 4, 1966, 487-491

TOPIC TAGS: crystal lattice defect, electrodeposition

ABSTRACT: The authors study defects formed in the crystal lattice of copper during electrodeposition from cyanide and acid solutions. It is found that copper deposits from sulfuric and perchloric acid solutions with surface-active additives contain crystal lattice packing defects of the deformation type. The packing defect concentration may reach 1.4%. The highest numbers of packing defects are formed at cathod potentials which correspond to adsorption of the surface-active agents. Orig. art. has: 4 figures and 1 table. [JPRS: 36,171]

SUB CODE: 11, 20 / SUBM DATE: 02Jun65 / ORIG REF: 006 / OTH REF: 010

UDC: 621.357.7

Cord 1/1 nst

14

CA POLUKAROVA, E. I.

Increasing the efficiency of cationic filters. E. I. Polukarova. Izvest. Vsesoyuz. Nauch.-issled. Inst. Khim. Mashinostroyeniya 21, No. 1, 22(1972).—Design and mech. improvements of water-softening filters are described. By virtue of these improvements the exchange capacity of the cationite rose from 500-600 to 800-900 g/cu.m. M. Hosh

POLUKAROVA, E. I.

AID - P-17

Subject : USSR/Engineering

Card : 1/1

Author : Polukarova, E. I., Eng. Baku

Title : Increase of efficiency of cationic filters.

Periodical : Izv. V.T.I., 21, No. 1, 23; Ja 1952

Abstract : A water cleaning arrangement in an electropower plant is described. The efficiency of operation of the filter is increased by reconstruction of the apparatus, the mixer, and the arrangement for uniform distribution of chemicals, and by increase of the light of filtering layer.

Institution : All Union Heat Engineering Inst. im F. E. Dzerzhinsky (VTI)

Submitted : June 19, 1951

Polukarpov, G. V.

478. Polukarpov, G. V., Calculation of ice pressure on frame-hydraulic installations (in Russian), *Trud. Gos. in-ta no. 23*, 24-14, 1953; Ref. Zh. Mekh. 1956, Rev. 5505.

When deriving the calculation formula, the ice pressure on a frame is assumed in the form of the sum of pressures caused by the friction of the air against the surface of the ice field, by the pressure of the water and the friction of the water against the underside of the ice. In addition, the force of "weakening" of the ice is calculated; this is connected with its plastic properties.

The formula for the dynamic pressure of the ice is based on the theorem for the amount of motion, on the assumption that the kinetic energy of the drifting ice block is expended on the destruction of the ice; it is assumed that the blocks of ice are laterally limited by cylindrical surfaces, and the impact force depends linearly on the extent of the ice field; the possible deformation of the tube frame (pile) is considered. For the formula derived it is necessary to have the test determination of the coefficients (depth of the incision of the appliance into the ice, temporary resistance, duration of the impact and displacement of the frame according to the loss of water on impact.)

S. Ya. Vartanov, USSR

Courtesy *Referativnyi Zhurnal*

Translation, courtesy Ministry of Supply, England

LYUBIMOV, B.A.; POLUKANPOV, Yu. I.

Tractors at the spring fair in Leipzig. Trakt. i sel'khozmas
no. 7:42-46 J1 '58. (MIRA 11:7)

(Tractors)

POLUKHEYEV, A.G.

Prolong the life of railroad ties; using an asphalt-cement mixture instead of clamp irons. Put' i put. khoz. no.4:27-28 Ap '58.
(MIRA 11:4)

1. Zamestitel' nachal'nika distantii, stantsiya Gryazi-Voronezhskiy.
(Railroads--Ties) (Asphalt)

POLUKEYEV, A.G.

Maintenance of ditches excavated in soft shale soils. Put' i put.
khoz. 5 no.9:46 3 '61. (MIRA 14:10)

1. Zamestitel' nachal'nika distantzii, st. Likhaya, Yugo-Vostochnoy
dorogi.

(Railroads--Earthwork)

POLUKEYEV, A.G., inzh. - Polukhina, M.Ya.

Protection of ballast apparatus of the station. Part 1. Part 2. (MIRA 18:8)
no.8:10-11 '66.

1. Nachal'nik Likhovskiy skazal 11 Yugo-Vostochny dok. (for Polukeyev). 2. Starshiy dok. (nyy master 10 otybiya skazal, stantsiya Debal'tsevo, Likhovskiy dok.).

POLUKHEYEV, A.G.

Rebuilding a roadbed damaged by earth slides. Put' i put.
khoz. no.11:24 N '59. (MIRA 13:4)

1. Zamestitel' nachal'nika distantsii puti, stantsiya Likhaya,
Yugo-Vostochnoy dorogi.
(Railroads—Track)

SEMENOV, V.T., dorozhnyy master (Stantsiya Biysk, Zapadno-Sibirskoy dorogi);
YEVDAYEV, B.N., starshiy inzh, (g.Baku); LETUCHIY, N.A.; POLUKEYEV, A.G.

Letters to the editor. Put' i put.khoz. 5 no.10:45-46 0 '61.
(MIRA 14:10)

1. Nachal'nik Semenovskoy distantzii puti, Gor'kovskoy dorogi (for
Letuchiy). 2. Zemestitel' nachal'nika distantzii puti, stantsiya
Iikhaya, Yugo-Vostochnoy dorogi.
(Railroads)

VLASOV, V.M.; POLUKEYEVA, M.G.

The 20th anniversary of the municipal chemical laboratory for
students. Khim. v shkole 15 no.3:93-94 My-Je '60. (MIRA 14:7)
(Yaroslavl--Chemical laboratories)

20253

1.1300

also 1496, 1045, 1454

S/148/60/000/011/007/015
A161/A030

AUTHORS: Polukhin, P. I.; Zheleznov, Yu. D.; Polukhin, B.P.

TITLE: Optical investigation of stresses and strains in four-high mill rolls

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Chernaya metallurgiya, no. 11, 1960, 71 - 80

TEXT: The purpose of the investigation was the determination of combined elastic deformation in the work and support rolls and the verification of existing theories on which the various existing rolls calculating methods are based, with a view to raising the accuracy requirements of the evenness of the cold rolled thin sheet thickness. The experiments were carried out in the stress research laboratory of the Kafedra ispol'zovaniya vodnoy energii Moskovskogo inzhenerno-stroitel'nogo instituta (Chair of Water Power Utilization of the Moscow Construction Engineering Institute). The conclusions made in experiments are not final. It is mentioned that stresses through the rolls, and elastic deformation components

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S/148/60/000/011/007/015
A161/A030

Optical investigation of stresses

caused by them, had up to now not been studied in experiments for multi-roll mills. A special steel stand had been designed and placed into a thermostat; the rolls were made of optically active D-40-M (E-40-M) material (Ref. 4, N. I. Prigorovskiy, N. A. Kupryakova, M. F. Bokshieyn. There was new optically active material on the epoxy resin base. Byulleten' vuzov No. 37, 1957). The rolls were a precise copy of the mill rolls in 1 : 10 scale. The rolling process was simulated without torque, and in static instead of dynamic equilibrium of forces. The stresses were "frozen" in slowly cooled rolls after loading at a certain temperature. A BPU-IMASH (BPU-IMASH) polarizer was used for photographing the isochromes, and a KCF-5 (KSP-5) polarizer with a Krasnov compensator for accurate determination of the isoclines and isochromes in spots on the cuts where their order or gradient was too low for the BPU-IMASH. More attention has been paid to stress and strain in the axial cross section of the support roll, for its rigidity determines the rigidity of the entire four-high system. The isochromes pattern (Figure 2) and stress epures show that both the work and support roll only very faintly resemble a bent beam. It was stated that $\sigma_{x_{max}}$ calculated with the conventional formulae, derived accord-

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Optical investigation of stresses

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A161/A030

ing to the materials strength theory, was seven times higher than the stress found in experiments. The isostates pattern clearly proved that the entire mass of the support roll works as a wall-beam, and this means that the conventional method of calculating the sag of the support rolls is wrong. The Tselikov formulae gave a sag of 0.047 mm, the Larke formulae 0.056 mm, and the experiment data 0.022 mm. The real pressure epure along the contact line (Figure 5) once more confirmed that the work roll works as a beam on an elastic base, and the trunnions on the bearings have a very high effect on the flattening resistance at the edges of the support roll barrel. This observation renders the Grudev's method of the resilience factor determination doubtful. The longitudinal flattening obviously has an inverse curvature to the sag strain curve of the support roll, and consequently the effect of sag is partly compensated by the effect of longitudinal flattening. But such a combination is obviously only possible at a certain relation of the rolls and the strip dimensions, and three cases are possible: 1) In rolling narrow strip with sufficient resilience - the flattening epure will have the same curvature as the sag; 2) In rolling a sufficiently wide strip, or with rigid work rolls - the flattening may be straight-lined and have no effect on the difference of the displacement at the mid

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Optical investigation of stresses

S/148/60/000/011/007/015
A161/A030

and the ends of the barrel; 3) In rolling very wide strip with very rigid work rolls - the flattening curvature will be inverse to the sag. It may be concluded that there exists a definite ratio between the strip width and the roll barrel length which will produce the maximum gage unevenness in constant compression. The stresses in contact are obviously higher on the support rolls than on the work rolls, and the support rolls surface must be more susceptible to fatigue failure (which is observed in practice). Conclusions: 1) The photoelastic method permits quantitative and qualitative evaluation of separate deformation components in the joint deformation of work and support rolls, and in finding the optimum roll parameters. 2) It is proven that the work roll works like a beam on elastic base, and the support roll trunnions have a very strong effect on the resilience of the work roll barrel edges. At $\frac{L}{D}$ ratio near 1, the support roll differs significantly from the bent beam and consequently its sag will be more correctly calculated as a wall-beam, or by the common methods, with certain corrections, however. 3) The conventional calculation of rolls for contact strength in accordance with the Hertz theory does not meet the peculiarities

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A161/A030

Optical investigation of stresses

of the interaction of the rolls in the contact zone. The maximum tangential stresses in the support roll highly exceed the maximum tangential stresses in the work roll. Preventive measures against fatigue failure are equally necessary for the surface of work and support rolls (relaxation, rational work periods between rolls replacements, etc.). 4) It is proven that the pressure between the work and support rolls is not evenly distributed, and this must be considered in calculations. There are 7 figures and 7 Soviet references.

ASSOCIATION: Moskovskiy institut stali (Moscow Steel Institute)

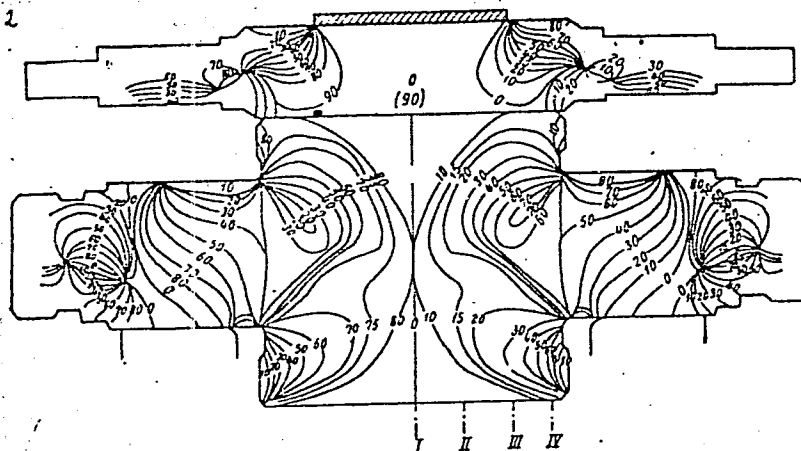
SUBMITTED: September 2, 1960

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Optical investigation of stresses

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S/148/60/000/011/007/015
A:61/A030

Figure 2: 2

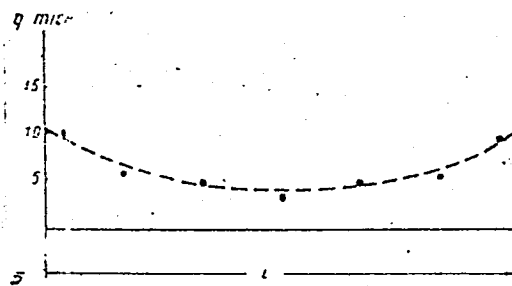


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Optical investigation of stresses

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A161/A030

Figure 5:



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SOKOLOV, B.M., kand.tekhn.nauk; DIREKTOR, B.Ya., inzh.; LOSNAK, S.B., inzh.;
POLUKHIN, A.I., inzh.; YAKOVLEV, G.G., inzh.

Experience in the use of power units with supercritical pressures
and prospects of their development. Teploenergetika 12 no.7:2-9
Jl '65.

(MIRA 18:7)

1. Gosudarstvennyy trest po organizatsii i ratsionalizatsii
rayonnykh elektrostantsiy i setey.

DIREKTOR, B.Ya., inzh.; LOSHAK, S.B., inzh.; MIRONOV, D.K., inzh.; POLUKHIN,
A.I., inzh.

First results of the preliminary starts and operation of a 300 Mw.
block. Elek. sta. 36 no.6:2-9 Je '65. (MIRA 18:7)

LOSHAK, S.B., inzh.; ~~FOLUKHIN, A.I., inzh.~~

Principal features of the equipment of a 300 Mw. block. Energetik
11 no.9:1-6 S '63. (MIRA 16:10)

POLUKHIN, F. (*Lecturer, Moscow Vet. Acad.*)

"The conference on the reorganization of instruction in
veterinary and zootechnical colleges on the basis of and for
development of the ideas of I.P. Pavlov."
SO: Veterinariya 27(9), 1950, p. 58

OSTAPENKO, K.A.; KOROPOV, V.M.; POLIKHIN, F.S.; SHUBINA, M.G.; KANYAGIN, V.I.;
ZINCHENKO, A.V.; KOSTOMASHVILI, A.; GOGILASHVILI, V.; KUPASHVILI, S.;
SIKORSKIY, A.

Information and brief news. Veterinariia 41 no.2:119-126 F '65.
(MIRA 18:3)

SHARABRIN, I.G.; ORLOV, P.T.; POLUKHIN, F.S.

"Metabolism in the ontogeny of calves under normal and pathological conditions" by V.M.Koropov, N.M. Noskov. Reviewed by I.G.Sharabrin, P.T.Orlov, F.S.Polukhin. Veterinariia 39 no.1:85-86 Ja '63.

(Calves) (Metabolism)

(MIRA 16:6)

POLUKHIN, F.S., dotsent

The fraction of ketone bodies in the blood of milk cows during
metabolic disorders of the alimentary toxemia type. Veterinariia
37 no.10:51-53 O '60. (MIRA 15:4)

1. Moskovskaya veterinarnaya akademiya.
(Acetonemia) (Cows--Diseases and pests)

KOROPOV, V.M., prof.; POLUKHIN, F.S., dots.

Develop and strengthen veterinary training through correspondence.
Veterinariia 36 no.2:11-13 F '59. (MIRA 12:2)

1. Moskovskaya veterinarnaya akademiya.
(Correspondence schools and courses)
(Veterinary medicine--Study and teaching)

L 52150-65 EPF(n)-2/EW (1) Pu-4 WW
ACCESSION NR: AP5017053

UR/0115/64/000/011/0020/0024

AUTHOR: Dolinakiy, Ye. F.; Kirmalov, L. A.; Polukhin, G. I.

25
13

TITLE: Reference dead-weight piston manometer for pressures up to 25000 kgf/cm²
(approximately 2.45×10^9 newton/m²)

SOURCE: Izmeritel'naya tekhnika, no. 11, 1964, 20-24

TOPIC TAGS: metrology, pressure measurement instrument, fluid pressure, test instrumentation

ABSTRACT: The piston manometer can be used to test other manometers or to make measurements in the cited range of pressure. The manometer consists of three parts, a pressurizing unit, a measuring unit, and a loading unit. A low-pressure amplifier pressurizes the cylinder of the high-pressure multiplier, the measuring section, and the test instrument to the initial pressure of 6000 kgf/cm² (5.9×10^8 newton/m²). Two valves are then closed. A further pressure increase up to 250000 kgf/cm² is produced by the high-pressure amplifier. The pressurized fluid passes through a cross-over of the central block, simultaneously entering a piston manometer and

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a test manometer. The readings of the two instruments are compared directly for test or calibration. O

The high-pressure amplifier has a piston throw of 120 mm, and an amplification factor of 25. The cylinder is made of three shrunk-fit sleeves. Sealing and packing materials and configurations are described in detail. Since deformation under high pressure is large, the piston is shrunk-fit into the cylinder (negative tolerance of 1-2 microns).

In addition to miscellaneous weights of 1 or a few kg, there are nine weights of 100 kg, four of 10 kg, two of 20 kg each, which together with the mass of the mechanical parts of 20 kg makes a total of 1000 kg.

The metals and other materials used for the various components are specified. The best working fluid was a 20% solution of raw rubber in benzene. Formulas are derived to correct for deformation and two limit cases (viscosity 0 and ∞) are calculated.

Testing shows that the manometer can be classed as a category three instrument with an error not exceeding 0.2% to 250000 kgf/cm².

ASSOCIATION: none

SUBMITTED: CO

NR REF SOV: 004

ENCL: 00

OTHER: 000

SUB CODE: ME, IE

JPRS

Card 2/2

POLUKHIN, F.S.; SAVOYSKIY, A.G.

Scientific conference on pathological physiology of farm animals.

Pat. fiziol. i eksp. terap. 8 no.1:83-85 Ja-7 '64.

(MIRA 18:2)

POLUKHIN, F. S. POLUKHIN

"Fraction of ketone bodies in blood of dairy cows in the case of
metabolic disease of the alimentary toxemia type."

Veterinariya, Vol. 37, No. 10, 1960, p. 51

Docent, Moscow Vet. Acad.

DOLINSKIY, Ye.F.; KIRMALOV, L.A.; POLUKHIN, G.I.

Standard weight-piston manometer with a capacity up to 25,000
kgf/cm². Izv. tekhn. no.11:20-24 N '64. (MIRA 18:3)

POLUKHIN, I. (Director)

"Serum against swine plague in malignant catarrhal fever of cattle."

SO: Veterinariia 24 (1), 1947, p. 41

Director of the Sampur Rayon Veterinary Hospital, Voronezh oblast.

ACC NR: AP7003157

(A, N)

SOURCE CODE: UR/0294/66/004/006/0745/0752

AUTHOR: Morgulis, N. D.; ~~Polushkin, I. N.~~

ORG: Kiev State University im. T. G. Shevchenko (Kievskiy gosudarstvennyy universitet)

TITLE: Investigation of a discharge plasma in helium and argon with admixture of cesium and potassium vapors

SOURCE: Teplofizika vysokikh temperatur, v. 4, no. 6, 1966, 745-752

TOPIC TAGS: plasma discharge, helium plasma, argon plasma, cesium, potassium

ABSTRACT: The article reports an experimental investigation of the physical properties of He-Cs, He-K, Ar-Cs, and Ar-K pulse discharges under admixture conditions, when their ionization is limited only by the atoms of the admixture. In these investigations, the pressure of the base inert gas (helium and argon) was constant and equal to 600 mm Hg, while the pressure of the admixtures (cesium and potassium vapors) was varied in the interval from 0.01 to 0.5 mm Hg; the density of the discharge current was in the region of $j = 4-70 \text{ amps/cm}^2$. Such a plasma can be considered as a physical model of a mixed gas-plasma semiconductor with shock ionization and "hot" electrons. The article presents a description of the necessary conditions for obtaining a quasi-steady-state of the plasma and of the way in which it fills the discharge tube. Determinations were made of the electric field strength, the conductivity, the electron temperature, and

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UDC: 537.523.537.562

ACC NR: AP7003157

the nature of the spectra of the plasmas obtained, under different experimental conditions. The article also describes several of the physical processes which take place in such a plasma. Orig. art. has: 4 formulas and 12 figures.

SUB CODE: 20/ SUBM DATE: 08Jul65/ ORIG REF: 010/ OTH REF: 010

Card 2/2

POLUKHIN, K., mayor

Strengthen shipboard housekeeping. Tyl i snab. Sov. Voor. Sil
21 no.7:55-59 J1 '61. (MIRA 14:8)
(Russia--Navy--Sea life)

FIL'KOV, N.I.; MAYZEL', M.M.; POLUKHIN, N.P.; ZABRODIN, E.V.;
KISELEVA, N.P., red.

[Maintenance and repair of the VMel diesel locomotive]
Remont teplovoza VMel. Moskva, Izd-vo "Transport,
1964. 136 p. (MIRA 17:8)

POLUKHIN, N. P.; KORZHENEVSKIY, V. V.; MONAKHOV, Ye. N.; TANTOV, S. V.

"AN Automatic Device for checking the Electrical Parameters
of Micro-Elements"

Report submitted at the Third Conference on Automatic
Control and Electrical Measurement Methods was held at
Novosibirsk, 19-23 Sept. 1961.

POLUKHIN, N.S.

Results of tri-cone drill operations in the Grozny oil fields.
Neft.khoz.34 no.6:25-27 Je '56. (MLRA 9:9)
(Grozny--Oil well drilling--Equipment and supplies)

GUN, G. Ya.; POLUKHIN, P.I.

Conformal transformation in the theory of a smoothly changing plastic flow. Report no.1:Izv. vys. ucheb. zav.; Chern. met. 7 no.7:90-95 '64 (MIRA 17:8)

1. Leningradskiy mekhanicheskiy institut i Moskovskiy institut stali i splavov.

POLUKHIN, P.I.; ARKHANGEL'SKIY, A.V.; KNYSHEV, Ya.V.; MASTEROV, V.A.

Characteristics of laminated strip rolling. Izv. vys. ucheb.
zav.; chern. met. 8 no.10:80-83 '65. (MIRA 18:9)

1. Moskovskiy institut stali i splavov.

POLUKHIN, P.I.; KUDRYAVTSEV, A.S.; BETS, N.G.; FARLADANSKIY, A.M.

Effect of chamfers on the elastic deformation of rolls of a
thin sheet mill. Izv. vys. ucheb. zav.; chern. met. 7 no.9:
118-121 '64. (MIRA 17:6)

1. Moskovskiy institut stali i splavov.

ACCESSION NR: AP4036806

8/0288/64/000/009/0011/0011

AUTHOR: Potapov, I. M.; Polukhin, P. I.; Osadchiy, V. Ya.; Pinagin, P. M.;
Mogilevkin, F. D.; Golubchik, R. M.; Tartakovskiy, I. K.

TITLE: A method for rolling seamless thin-walled pipes. Class 7, No. 162089

SOURCE: Byul. izobr. i tovar. znakov, no. 9, 1984, 11

TOPIC TAGS: pipe rolling, seamless pipe, thin-walled pipe, rolling mill, pipe
rolling mill, metal rolling

ABSTRACT: This author's certificate introduces a method for rolling seamless thin-walled pipes by the intensive rolling (burnishing) method. In order to increase the mill productivity and reduce the thickness of the pipe walls (for example a wall thickness of 1.5 mm and more at a diameter to wall thickness ratio of 12-30), the burnishing (intensive rolling) is carried out on a conical mandrel in a rolling mill with three rollers. The working rollers of the mill are made in the form of two cones.

ASSOCIATION: none

Cord 1/2

ACCESSION NR: AP4036806

SUBMITTED: 16Jan63

DATE ACQ: 02Jun64

ENCL: 00

SUB CODE: MM

NO REF SOV: 000

OTHER: 000

Card 2/2

GUN, G.Ya.; POLUKHIN, P.I.; PRUDKOVSKIY, B.A.; POLUKHIN, V.P.; YERMANOK, M.Z.

Calculating strain hardening and the temperature field
during extrusion. Izv. vys. ucheb. zav.; tsvet. met. 8
no.4:134-139 '65. (MIRA 18:9)

1. Kafedra tekhnologii i avtomatizatsii prokatnogo proizvodstva
Moskovskogo instituta stali i splavov.

POLUKHIN, P.I.; KUDRYAVTSEV, A.S.; BETS, N.G.

Investigating the effect of the parameters of rolls and strip width on the rigidity of the roll system on sheet mills. Report no.2. Izv. vys. ucheb. zav.; chern. met. 8 no.5:85-89 '65.

(MIRA 18:5)

1. Moskovskiy institut stali i splavov.

MARKOVSKIY, V.Yu.; POLUKHIN, F.I.; SHASKOL'SKAYA, M.P.

Method of the simultaneous observation of stresses and deformations
in elastic and plastic regions. Izv. vys. ucheb. zav.; tsvet. met.
7 no.6:109-115 '64. (MIRA 18:3)

1. Moskovskiy institut stali i splavov, kafedra kristallografii i
kafedra tekhnologii i avtomatizatsii prokatnogo proizvodstva.

POLUKHIN, P.I.; GUN, G.Ya.; POLUKHIN, V.P.; PRUDKOVSKIY, B.A.; KOROLEV, V.M.

Using the method of electrohydrodynamic analogies in the theory of metalworking by pressure. Izv. vys. ucheb. zav.; Chern. met. 8 no.5:57-64 '65. (MIRA 18:5)

1. Moskovskiy institut stali i splavov.

S/0286/64/000/004/0012/0013

ACCESSION NR: AP4021210

AUTHOR: Kudryavtsev, A. S.; Polukhin, P. I.; Karpov, S. P.; Polukhin, V. P.; Golubchik, R. M.; Geniyev, A. N.

TITLE: A method for internal shaping (calibration) of sheet mill rolls. Class 7, No. 160496

SOURCE: Byul. izobret. i tovarn. znakov, no. 4, 1964, 12-13

TOPIC TAGS: sheet metal shaping, sheet metal profiling, sheet metal calibration, sheet metal roller mill, sheet mill roll

ABSTRACT: This authorship certificate introduces a method for internal profiling (gauging) of sheet mill rolls. In order to produce sheets with more accurate geometrical dimensions and to increase the work life of the rolls, the roll profiling (calibration) is done on the interior surface. 2. A method on this same system which uses ready-made rolls. A material which has a low melting point in comparison with the roll metal and predetermined physical properties is used to flood the interior cavity of the roll.

Card 1/2

ACCESSION NR: AP4021210

ASSOCIATION: none

SUBMITTED: 17Jan63

DATE ACQ: 01Apr64

ENCL: 00

SUB CODE: ML

NO REF SOV: 000

OTHER: 000

Card 2/2

POLUKHIN, P. I.; GRIGOREAN, G. G.; NIKOLAYEV, V. A.; ZHELEZNOV, Yu. D.

Approximate modeling of stresses in the surface layers of
work rolls. Izv. vys. ucheb. zav.; chern. met. 7 no. 6: 97-102 '64.
(MIRA 17:7)

L 15567-63

EWP(r)/EWT(d)/EWP(k)/EWP(q)/EWT(m)/BDS

AFFTC/ASD

Pf-4 JD/HW-

ACCESSION NR: AP3002853

S/0126/63/015/006/0927/0929

AUTHORS: Polukhin, P. I.; Zheleznov, Yu. D.; Vorontsov, V. K.; Grigoryan, G. G.

TITLE: Application of optically sensitive coatings in the study of plastic deformation of polycrystalline materials

SOURCE: Fizika metallov i metallovedeniye, v. 15, no. 6, 1963, 927-929

TOPIC TAGS: polycrystalline material, coating, optical sensitivity, plastic deformation

ABSTRACT: The mechanism of grain deformation in polycrystalline solid bodies has been studied with the use of optically sensitive coatings of different optical and mechanical properties. Steel plates with grains up to 1.5 cm were coated with a plastic 1.5 mm thick on both sides and were then analyzed in reflected polarized white light. The simultaneous deformation of the coating film and the sample surface makes it possible to evaluate qualitatively the distribution of deformation by the optic effect. The variation of the isochrome picture in the process of plastic elongation was photographed with a color motion-picture camera in order to study the progress of the process. The degree of deformation in

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"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001341920001-0"

ACCESSION NR: AP3002853

separate grains and the degree of their yield to plastic deformation were evaluated according to the speed with which the color spectrum changed in the field of a grain. The results showed that in easily deformable grains the color change originates either in the middle of the grain and moves outward, or it originates at the periphery and moves toward the center. In the more resistant grains the color change was slow and uniform all over the field, becoming more rapid only in the last deformation stages near the grain boundaries. Orig. art. has: 2 figures.

ASSOCIATION: Moskovskiy Institut stali i splavov (Moscow Institute of Steel and Alloys)

SUBMITTED: 21Aug62

SUB CODE: ML, PH

DATE ACQ: 23Jul63

NO REF SOV: 003

ENCL: 00

OTHER: 000

Card 2/2

POLUKHIN, P. I., prof., doktor tekhn. nauk; FEDOSOV, N. M., prof.;
KRUPIN, A. V., kand. tekhn. nauk; TARASEVICH, Yu. F., inzh.

Resistance to deformation in rolling carbon and chromium steels.
Sbor. Inst. stali i splav. no. 40:84-99 '62.

(MIRA 16:1)

(Rolling(Metalwork))
(Deformations(Mechanics))

ZAROSHCHINSKIY, Mikhail Leont'yevich; POLUKHIN, F.I., prof., doktor
tekhn. nauk, retsenzent; GROMOV, N.P., prof., retsenzent;
FEDOSOV, N.M., prof., retsenzent; VAGIN, A.A., red. izd-va;
DOBUZHINSKAYA, L.V., tekhn. red.

[Technological principles of rolling mill design] Tekhnologichesk
osnovy proektirovaniia prokatnykh stanov. Moskva,
Metallurgizdat, 1962. 443 p. (MIRA 15:12)
(Rolling mills--Design and construction)

POLUKHIN, Petr Ivanovich, prof., doktor tekhn. nauk; GRDINA, Yu.V.,
~~prof.~~, ~~doktor tekhn. nauk~~; ZARVIN, Yevgeniy Yakovlevich, prof.;
GROMOV, N.P., prof., nauchnyy red.; GOROBINCHENKO, V.M., inzh.,
red. izd-va; ATTOPOVICH, M.K.[deceased], tekhn. red.

[Rolling and heat treatment of railroad rails] Prokatka i termi-
cheskaia obrabotka zheleznodorozhnykh rel'sov. [By] P.I. Polukhin
i dr. Moskva, Metallurgizdat, 1962. 510 p. (MIRA 16:2)
(Rolling (Metalwork)) (Railroads--Rail)

POLUKHIN, P.I.; VORONTSOV, V.K.; PRUDKOVSKIY, B.A.

Investigating by optical methods the transition stages of the
rolling process. Izv. vys. ucheb. zav.; Chern. met. 7
no.1:69-77 '64. (MIRA 17:2)

1. Moskovskiy institut stali i splavov.

POLUKHIN, P.I.; POLUKHIN, V.P.; NIKOLAYEV, V.A.; GUN, G.Ya.

Polarization optical method of investigating contact stresses
in the rolling process. Izv. vys. ucheb. zav.; Chern. met. 7
no.12:52-58 '64 (MIRA 18:1)

1. Moskovskiy institut stali i splavov.

GUN, G.Ya.; POLUKHIN, P.I.

Using analytical functions in plane problems of plastic flow.
Izv. vys. ucheb. zav.; Chern. met. 7 no.11:81-88 '64.

(MIRA 17:12)

1. Leningradskiy mekhanicheskiy institut i Moskovskiy institut
stali i splavov.

POLUKHIN, P.I.; GRIGORYAN, G.G.; NIKOLAYEV, V.A.; ZHELEZNOV, Yu.D.

Active stresses in the rolls of cold rolling mills. Vest. Akh Kazakh.
SSR 20 no.2:71-80 F '64. (MIRA 18:1)

POLUKHIN, P.I.; POLUKHIN, V.P.; ZHELEZNOV, Yu.D.; MARKOVSKIY, V.Yu.

Investigating stresses and deformations in two-dimensional sheet
rolling mill rolls by the method of two-dimensional photoelasticity.
Izv.vys.ucheb.zav.; chern.met. 5 no.4:61-75 '62. (MIRA 15:5)

1. Moskovskiy institut stali.
(Rolls (Iron mills)) (Photoelasticity)

SHCHEGOLEVSKAYA, N.A.; SOKOLOV, S.I.; POLUKHIN, P.I.; VORONTSOV, V.K.

Polymer coating on metals for studying plastic deformations
by the optical method. Izv.vys.uch.zav.; khim.i khim.tekh.
5 no.4:647-652 '62. (MIRA 15:12)

1. Moskovskiy institut khimicheskogo mashinostroyeniya i
Moskovskiy institut stali.

(Protective coatings—Optical properties)

(Polymerization)

(Deformations (Mechanics))

POLUKHIN, P.I.; MASGEROV, V.A.; GUN, G.Ya.

Effect of external parts on an increase in width during longitudinal rolling. *Izv. vys. ucheb. zav.; tsvet. met.* 5 no.5:141-144 '62.
(MIRA 15:10)

1. Moskovskiy institut stali, kafedra prokatki.
(Rolling (Metalwork)) (Deformations (Mechanics))

POLUKHIN, P. I., prof., doktor tekhn. nauk; ZHELEZNOV, Yu. D., inzh.;
POLUKHIN, V. P., inzh.; KOZLOV, O. F., inzh.

Criteria for the durability of rolls on cold rolling mills.
Sbor. Inst. stali i splav. no.40:210-218 '62.
(MIRA 16:1)

(Rolls(Iron mills))

POLUKHIN, P. I., prof., doktor tekhn. nauk; FEDOSOV, N. M., prof.;
KRUPIN, A. V., kand. tekhn. nauk; KATEROV, V. A., inzh.;
SHILKOV, B. N., inzh.; MAKSIMOV, B. M., inzh.

Increase in width during rolling with drawing dies. Sbor. Inst.
stali i splav. no.40:100-106 '62. (MIRA 16:1)

(Drawing(Metalwork))

POLUKHIN, P.I., doktor tekhn.nauk, prof.; GRIGORYAN, G.G., inzh.

Effect of the axial groove on the strength of working rolls of
cold-rolling mills. Izv.vys.ucheb.zav.; mashinostr. no.6:148-154
'63. (MIRA 16:10)

1. Moskovskiy institut stali i splavov.

POLUKHIN, P.I., doktor tekhn. nauk, prof.: ZHELEZNOV, Yu.D., kand. tekhn. nauk; ANTSIFEROV, V.G., inzh.; REIZOV, N.S., inzh.; SAKHARIN, N.N., inzh.; NIKOLAYEV, V.A., inzh.; TERESHKO, A.K., inzh.; POLUKHIN, V.P., kand. tekhn. nauk

Investigating the strength of the connecting rod of slabbing-
mill shears. Vest. mashinostr. 43 no.10:13-17 0 '63.
(MIRA 16:11)

GUN, G.Ya.; POLUKHIN, P.I.

Some problems of plastic flow in a polygonal strip. Izv. vys.
ucheb. zav.; Chern. met. 6 no.8:85-92 '63. (MIRA 16:11)

1. Leningradskiy mekhanicheskiy institut i Moskovskiy institut
stali i splavov.

L 20778-66 EWT(d)/EWT(m)/EWP(w)/EWP(v)/T/EWP(t)/EWP(k)/EWP(h)/EWP(l) IJF(c)
ACC NR: AP6005558 JD/HW/JH

SOURCE CODE: UR/0148/65/000/010/0080/0083

AUTHOR: Polukhin, P. I.; Arkhangel'skiy, A. V.; Knyshev, Yu. V.; Masterov, V. A. 49
B

ORG: Moscow Institute of Steel and Alloys (Moskovskiy institut stali i splavov)

TITLE: Certain features of the rolling of bimetal strip 10

SOURCE: IVUZ. Chernaya metallurgiya, no. 10, 1965, 80-83

TOPIC TAGS: bimetal, metal rolling, aluminum, copper, yield strength, plastic deformation

ABSTRACT: Reduction in area during rolling was investigated for a 40 mm wide Al-Cu strip as a function of the initial mechanical properties of each metal (as modified by preliminary peening or annealing) and the rate of their strain hardening during rolling. Owing to preliminary peening the initial ratio between the yield points of Cu and Al, σ_{Cu}/σ_{Al} , was 0.8 (peened Al, Al, annealed Cu) and 17 (peened Cu, annealed Al). The distribution of total reduction in area between the layers of the strip, the total and mean unit pressure, the linear pressure per unit width of the strip, the distribution of pressure over the arc of contact with the roll and the length of that arc, and the torque on the rolls were investigated in a rolling mill with 27 27

Card 1/2

UDC: 621.771.23.01

L 20778-66

ACC NR: AP6005558

rolls of 170-mm diameter. It was found that, when rolling a strip with layers of a thickness ratio of 1:1, the mean unit pressure is sufficiently closely equal to the mean yield point of the strip; thus, the averaged yield point for both layers of the strip may be used for the approximate calculation of rolling stresses. Equality of torques on both rolls was observed for the case of a 45% reduction in area, when the mean radial pressures on Al and Cu differed, and when the corresponding linear pressures on the rolls also differed; this proves yet again the need to take into account the asymmetry of deformation of the strip. The length of the arc of contact with the roll also differed, being greater for the layer with the greater deformation resistance (Al). Orig. art. has: 5 figures.

SUB CODE: 11, 13/ SUM DATE: 20Jul65/ ORIG REF: 000/ OTH REF: 000

Cord 2/2 vrb

L 17415-66 EWT(m)/EWA(1)/EWP(t) JD/HW

ACCESSION NR: AP5013676

SOURCE CODE: UR/0182/65/000/005/0001/0005

AUTHOR: Polukhin, P.I.; Teterin, P.K.; Luk'yanov, V.P.; Vorontsov, V.K.;
Kartoshkin, A.A.

ORG: none

TITLE: Stress deformation state in rolling circular blanks

SOURCE: Kuznechno-shtampovnochnoye proizvodstvo, no. 5, 1965, 1-5

TOPIC TAGS: stress analysis, strain, material deformation, circular forging, circular blank, blank, reduction, tensile stress, applied load, load, mandrel diameter effect, ram form effect, reduction degree effect

ABSTRACT: This study was carried out because there is an increasing need of circular forgings from difficultly deforming stainless and heat resistant steels and alloys. The stress deformation state of the metal in the area of deformation during the rolling of the circular blanks on a mandrel was investigated with respect to the form of the working surface of the ram (plane, concave, and convex), diameter of the mendrel, and degree of reduction. The experimental results show

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L 17415-66

ACCESSION NR: AP5013676

that 1) the process of reduction of circular blanks on a mandrel is accompanied by the occurrence of tensile stress in the deformation area perpendicular to the applied load, 2) the tensile stress and the zone it affects in the deformation area markedly decrease with increase in the degree of reduction, and 3) an increase in the mandrel diameter and application of a concave ram tends to decrease the area of action of the tensile stress as well as of its absolute value. Orig. art. has: 4 formulas, 5 figures, and 3 tables.

SUB CODE: 13,11

SUBM DATE: 00

ORIG REF: 004

OTH REF: 000

Card 2/2 not

POLUKHIN, P.I.; BERKOVSKIY, V.S.; OSADCHIY, A.N.; STETSENKO, N.V.;
AVRUNIN, P.M.; IVANKIN, Yu.I.

Oval and edged oval system of roll passes on tandem light
section mills for rolling high alloy steel. Stal' 25
no.4:337-341 Ap '65. (MIRA 18:11)

1. Moskovskiy institut stali i splavov i Zavod "Dneprospetsstal'".

POLUKHIN, P.I.; NIKOLAYEV, V.A.; POLUKHIN, V.P.; GROGORYAN, G.G.

Determining the flattened arc of bite in sheet rolling. Izv.
vys. ucheb. zav.; Chern. met. 7 no.7:125-131 '64. (MIRA 17:8)

1. Moskovskiy institut stali i splavov.

POLUKHIN, P.I.; VORONTSOV, V.K.

Investigating conditions of stress and deformation during
rolling. Izv. vya. ucheb. zav.; Chern. met. 7 no.8:102-
109 '64. (MIRA 17:9)

1. Moskovskiy institut stali i splavov.

GUN, G.Ya.; POLUKHIN, P.I.; PRUDKOVSKIY, B.A.; POLUKHIN, V.P.

Some problems in the theory of the extrusion process in
assymetrical and multiple-hole dies. Izv. vys. ucheb. zav.;
chern. met. 7 no.10:70-74 '64. (MIRA 17:11)

1. Moskovskiy institut stali i splavov.

31862-65 EWT(d)/EWT(m)/EWP(y)/EWA(d)/T/EWP(t)/EWP(b) JD/EM

ACCESSION NR: AP5003369

S/0149/64/000/006/0109/0115

AUTHOR: Markovskiy, V. Yu.; Polukhin, P.I.; Shaskol'skaya, M.P.

TITLE: A method for the simultaneous observation of stresses and strains in crystalline substances in the elastic and plastic regions

SOURCE: IVUZ. Tsvetnaya metallurgiya, no. 6, 1964, 109-115

TOPIC TAGS: crystal stress, crystal strain, elastic deformation, plastic deformation, silver chloride, stress strain diagram, polarization optics, photoelastic coating

ABSTRACT: A new technique is described for the simultaneous and direct study of the actual and residual stresses and strains by a polarization-optical method. The essential feature of the technique consists in observing the stresses in a polycrystalline material (AgCl) and at the same time studying the strains by the method of photoelastic coatings. In the latter method, a reflecting layer of metallic silver is deposited on the polycrystalline AgCl, and an optically sensitive coating is placed on top of that layer. Two patterns of isochromes (one in AgCl and one in the coating) are then observed on two separate screens, the specimens being subjected to loads. The apparatus and method of operation are described in detail. The technique can be successfully applied to the study of single crystals and coarse-grained polycrystalline samples of any crystalline substance

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ACCESSION NR: AP5003369

(or amorphous material) producing an optical effect when subjected to stresses. Quantitative data were obtained on the distribution of residual stresses and strains in a sample of fine-grained polycrystalline AgCl subjected to pure plastic bending. The data obtained for silver chloride by the method of photoplasticity can be extended to metals when the simulation laws are observed. Orig. art. has: 5 figures and 1 formula.

ASSOCIATION: Moskovskiy institut stali i splavov (Moscow steel and alloys institute)

SUBMITTED: 21Feb64

ENCL: 00

SUB CODE: MM, IE

NO REF SOV: 009

OTHER: 001

Card 2/2

GUN, G.Ya.; POLUKHIN, P.I.

Conformal representation in the theory of smoothly changing
plastic flow. Report No.2. Izv. vys. ucheb. zav.; chern.
met. no.9:68-73 '64. (MIRA 17:6)

1. Leningradskiy mekhanicheskiy institut i Moskovskiy institut
stali i splavov.

POLUKHIN, P.I.; KUDRYAVTSEV, A.S.; BETS, N.G.

Elastic deformation of rolls on sheet mills. Izv. vys. ucheb.
zav.; chern. met. 6 no.9:110-113 '63. (MIRA 16:11)

1. Moskovskiy institut stali i splavov.

POLUKHIN, P. I., prof., doktor tekhn. nauk; MASTEROV, V. A., inzh.;
FOMENKO, Yu. Ye., kand. tekhn. nauk

Complex investigation of contact pressure and friction forces
during rolling. Sber. Inst. stali i splav. no.40:166-172
'62. (MIRA 16:1)

(Rolling(Metalwork))
(Pressure—Measurement)
(Friction—Measurement)

POLUKHIN, P. I., prof., doktor tekhn. nauk; ZHELEZNOV, Yu. D., inzh.;
POLUKHIN, V. P., inzh.; MARKOVSKIY, V. Yu., inzh.

Heat balance in the performance of five-stand cold rolling
mills. Sbor. Inst. stali i splav. no.40:219-224 '62.
(MIRA 16:1)

(Rolling mills) (Heat)

PAVLOV, I. M.; POLUKHIN, P. I., prof., doktor tekhn. nauk;
ZHELEZNOV, Yu. D., inzh.; POLUKHIN, V. P., inzh.

Photoelastic method for the investigation of stresses in rolls
and in the strip during rolling. Sbor. Inst. stal' i splav.
no.40:264-276 '62. (MIRA 16:1)

1. Chlen-korrespondent AN SSSR (for Pavlov).

(Rolling(Metalwork)) (Photoelasticity)

GUN, G.Ya.; POLUKHIN, P.I.

Plastic flow in a polygonal strip of material undergoing hardening.
Report no. 1. Izv. vys. ucheb. zav.; chern. met. 6 no.6:81-87
'63. (MIRA 16:8)

1. Leningradskiy mekhanicheskiy institut i Moskovskiy institut
stali i splavov.

(Deformations (Mechanics))

POLUKHIN, F.I.; MASTEROV, V.A.; GUN, G.Ya.

Experimental verification of basic design equations of the process of longitudinal rolling with increase in width. Izv. vys. ucheb. zav.; tsvet. met. 5 no.4:157-168 '62. (MIRA 16:5)

1. Moskovskiy institut stali, kafedra prokatki i Leningradskiy mekhanicheskoy institut, kafedra obrabotki metallov davleniya.
(Rolling (Metalwork))

POLUKHIN, P.I.; ZHELEZNOV, Yu.D.; VORONTSOV, V.K.; GRIGORYAN, G.G.

Using the method of optically sensitive coatings for the study of plastic deformations in polycrystalline materials. Fiz. met. i metalloved. 15 no.6:927-929 Je '63. (MIRA 16:7)

1. Moskovskiy institut stali i splavov.
(Deformations mechanics) (Optical measurements)

POLUKHIN, P.I.; NIKOLAYEV, V.A.; RADYUKOVICH, L.V.; ZHELEZNOV, Yu.D.;
POLUKHIN, V.P.

Increasing the output of the 1200 continuous mill. Metallurg
8 no.5:18-19 My '63. (MIRA 16:7)

1. Moskovskiy institut stali i splavov i Magnitogorskiy
metallurgicheskiy kombinat.
(Rolling mills)

POLUKHIN, P. I., prof., doktor tekhn. nauk; OSADCHIY, V. Ya., kand.
tekhn. nauk; RZMOV, V. A., inzh.; GOLOVKIN, R. V., inzh.;
KRICHEVSKIY, Ya. M.

Experimental investigation of power parameters of electric pipe
welding machines. Sbor. Inst. stali i splav. no.40:451-459 '62.
(MIRA 16:1)

1. Moskovskiy institut stali i Moskovskiy trubnyy zavod.

(Electric welding—Equipment and supplies)

GUN, G.Ya.; POLUKHIN, P.I.

Conformal transformation and variational methods in the pressure
metalworking theory. Izv. vys. ucheb. zav.; chern. met. 6 no.5:
97-105 '63. (MIRA 16:7)

1. Leningradskiy mekhanicheskiy institut i Moskovskiy institut
stali i splavov.

(Rolling (Metalwork)) (Drawing (Metalwork))

POLUKHIN, P.I.; POLUKHIN, V.P.; ZHELEZNOV, Yu.D.; SKORUPSKIY, V.I.

Use of volumetric component models in the study of the strength of
rollers by an optical method. Zav.lab. 29 no.8:990-992 '63.
(MIRA 16:9)

1. Moskovskiy institut stali i splavov.
(Rolls (Iron mills)—Testing)

POLUKHIN, P. I., prof., doktor tekhn. nauk; SHALYAPIN, M. M., inzh.;
MASTEROV, V. A., inzh.

Conditions of plastic friction on the surface of the contact
between strip and rolls during longitudinal rolling. Sbor. Inst.
stali i splav. no.40:56-65 '62. (MIRA 16:1)

(Rolling(Metalwork)) (Friction)

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